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REPORT
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HIGHWAY FATALITY AND INJURY
REDUCTION ACT OF 1991

Mr. HOLLINGS, from the Committee on Commerce, Science,
and Transportation, submitted the following

R E P O R T

OF THE

SENATE COMMITTEE ON COMMERCE,
SCIENCE, AND TRANSPORTATION

ON

S. 591



JUNE 3, 1991.—Ordered to be printed

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Mr. HOLLINGS, from the Committee on Commerce, Science, and
Transportation, submitted the following

REPORT

[To accompany S. 591]

The Committee on Commerce, Science, and Transportation, to which was referred the bill (S. 591) to require airbags for certain newly manufactured vehicles, having considered the same, report favorably thereon and recommend that the bill do pass.

PURPOSE OF THE BILL

This bill requires that driver and passenger side airbags be installed by manufacturers of new passenger vehicles on a phased-in schedule. This required safety equipment will be in addition to the other safety features currently required by law.

BACKGROUND AND NEEDS

Current regulations of the Department of Transportation (DOT) require that passenger cars be equipped with "passive restraints," which include either airbags or automatic seatbelts that do not require action by the occupant in order to be engaged. When fully effective, in model year 1994, these regulations will require that all cars have one of these forms of passive restraint on both the driver and passenger side of the front seat. 49 C.F.R. 571.208.

In March 1991, DOT issued a similar requirement for passive restraints in the "light truck" fleet, which includes minivans, small pickups, and jeeps. 56 Fed. Reg. 12472-12487 (March 26, 1991). These vehicles, which originally were used primarily for cargo or work purposes, now make up approximately one-third of the new

passenger vehicles sold, and are increasingly used by families.¹ Under the DOT rule, "light trucks" will be required to have "passive restraints" (automatic belts or airbags) on both the driver and passenger sides on the following schedule: 20 percent of the vehicles manufactured after September 1, 1994; 50 percent of those manufactured after September 1, 1995; 90 percent of those manufactured after September 1, 1996; and 100 percent after September 1, 1997. However, those manufacturers that install airbags instead of automatic seatbelts on the driver side are permitted to delay installation of any passive restraints in the passenger side until September 1, 1998.

The problem with the current rule is that it permits manufacturers to choose between two forms of passive restraints, even though it is beyond dispute that airbags provide the best protection to occupants. Testimony at the Consumer Subcommittee hearing on S. 591 demonstrated a consensus among DOT and other auto safety experts such as the Center for Auto Safety, Public Citizen, the Insurance Institute for Highway Safety (IIHS), and the Institute for Injury Reduction that airbags, together with seatbelts, provide better protection for the occupant in a frontal or head-on crash, than do seatbelts alone.² General Jerry Curry, Administrator of National Highway Traffic Safety Administration (NHTSA), agreed in testimony before the Consumer Subcommittee that nothing is more effective for occupant restraint than an airbag coupled with a manual seatbelt.³ The State Farm Insurance Company has tracked the experience of its policyholders with airbag-equipped cars since May 1989. In all but three out of 3,739 accidents in which the airbag deployed, the drivers survived.⁴

The Center for Auto Safety testified before the Consumer Subcommittee that, due to their ability to manage forces in frontal crashes, airbags provide protection at far higher crash speeds than do seatbelts alone. For example, in Virginia a 2,600 pound Chrysler LeBaron was hit head-on at a closing speed of more than 70 miles per hour (mph) by a 4,000 pound Ford wagon. The Chrysler had an airbag and manual seat belt, and its driver lived, while the Ford driver, wearing only a seatbelt, was killed.⁵

Additional examples of crashes of vehicles equipped with airbags confirm their lifesaving value. On August 31, 1990, an airbag-equipped Chevrolet Camaro slammed into a tree in Meridian, MS. The driver walked away from the accident, even though police said the car was travelling at 50 mph when it hit the tree. On March 12, 1990, two airbag-equipped Chrysler LeBarons collided head on in Culpeper County, VA. The vehicles were destroyed, but the drivers walked away with minor bruises. During the summer of 1989, in Lancaster County, VA the driver of a Chrysler LeBaron convertible with an airbag survived a head-on, 80 mph closing speed crash with a full-sized station wagon. In another accident 2 years ago, an 18-year-old driver from Lee, NH, survived a 50 mph crash into a

¹ S. Hrg. 102-9 at 129.

² See, e.g., S. Hrg. 102-41 at 14, 23, 30 and 34.

³ S. Hrg. 102-41 at 14.

⁴ State Farm Insurance Research Department, 1 State Farm Plaza E8, Bloomington, Illinois (May 1, 1991).

⁵ *Id.* at 38.

large tree stump because he was driving an airbag-equipped Dodge Daytona. In July 1989, in the mountains outside of Boise, ID, a Lincoln Continental veered off the road. The car flew 58 feet in the air before landing on its roof. Local police and DOT officials said the couple in the car survived the crash because their Continental had driver and passenger side airbags.

DOT has estimated that airbags could save over 9,000 lives and prevent 155,000 moderate to serious injuries each year as compared to the situation if no cars were equipped with airbags. 49 Fed. Reg. 28986 (July 17, 1984). The IIHS has estimated that about 7,500 lives each year could be saved if vehicles not now equipped with airbags were airbag-equipped.⁶

By contrast, a German study assessed the effectiveness of automatic belts on more than 600 passengers involved in frontal collisions. The study found that, even with automatic belts, 30.4 percent of the drivers suffered a head impact and 10.6 percent suffered skull-brain trauma. The study also found that 28.6 percent of the drivers sustained chest injuries.⁷

There also is evidence that some of the automatic seatbelts used by manufacturers to comply with DOT's current passive restraint rule are awkward and not well accepted by the consumer. A survey by the IIHS found that a large percentage of these seatbelts are disconnected by dealers in the showroom before the consumer ever takes the car home.⁸ Additionally, testimony before the Consumer Subcommittee from the Center for Auto Safety and the Institute for Injury Reduction stated that some of these belts have design flaws that limit their effectiveness, so that in some instances the automatic belts actually offer less protection than the manual belt that they replace.⁹ For example, some automatic belts are attached to the vehicle door and allow ejection of the occupant in a crash; or the lap belt is not part of the automatic system, and occupants often forget to attach it.¹⁰ A University of North Carolina Highway Safety Research Center study found that less than 30 percent of the occupants of cars with motorized shoulder belts also connected their lap belts.¹¹

In recognition of the superior performance of airbags, many manufacturers are voluntarily putting airbags instead of automatic seatbelts into their vehicles. The NHTSA Administrator has testified that by 1994 90 percent of all cars will have airbags, although it is not clear whether these would be on the driver side only.¹² Generally, the higher priced cars are the ones that are first equipped with airbags, although some manufacturers have now announced plans to put airbags in all their cars.¹³ Manufacturers

⁶ Letter from Brian O'Neill, President, IIHS, to Senator Danforth, dated March 6, 1991.

⁷ Otte, Sudkamp, and Apell, "Residual Injuries to Restrained Car-Occupants in Front and Rear-Seat Positions," Accident Research Unit, Hanover, West Germany (1987).

⁸ IIHS Status Report, Vol. 24, No. 9, September 23, 1989.

⁹ S. Hrg. 102-41 at 30, 34, 37, and 38.

¹⁰ *Id.* at 37.

¹¹ Reinfurt, Cyr, and Hunter, "Usage Patterns and Misuse Rates of Automatic Seat Belts by System Type," Highway Safety Research Center, University of North Carolina (1990), presented at the 34th Annual Conference of the Association for the Advancement of Automatic Medicine, October 1990.

¹² S. Hrg. 102-19 at 56.

¹³ S. Hrg. 102-41 at 42, 51.

have not begun putting airbags in all minivans, trucks and jeeps, however. Only one manufacturer's minivan has an airbag currently available.¹⁴

The cost of an airbag was estimated by DOT in 1984 to be about \$220 for a driver's side, and \$320 for both front seats, once airbags were being used in high volume. 49 Fed. Reg. 28989 (July 17, 1984). The industry originally estimated the cost at between \$500 and \$1,000. 49 Fed. Reg. 28969 (July 17, 1984). The actual cost is now consistent with DOT's estimates, and is expected to decrease as more airbags are used.¹⁵

LEGISLATIVE HISTORY

S. 591 was introduced by Senator Bryan on March 7, 1991, and cosponsored by Senators Hollings, Danforth, Gorton, Adams, and Gore. The Consumer Subcommittee held a hearing on March 21, 1991. In open executive session on May 14, 1991, the bill was ordered reported by the Committee without amendment and without objection.

SUMMARY OF MAJOR PROVISIONS

S. 591 would require that all passenger cars manufactured on and after September 1, 1995, have airbags on the driver and passenger sides. It also would require that all minivans, small pickups and jeeps manufactured on and after September 1, 1996, have airbags on the driver side, and all those manufactured on and after September 1, 1997, have airbags on the driver and passenger side.

ESTIMATED COSTS

In accordance with paragraph 11(a) of rule XXVI of the Standing Rules of the Senate and section 403 of the Congressional Budget Act of 1974, the Committee provides the following cost estimate, prepared by the Congressional Budget Office:

U.S. CONGRESS,
CONGRESSIONAL BUDGET OFFICE,
Washington, DC, May 24, 1991.

Hon. ERNEST F. HOLLINGS,
Chairman, Committee on Commerce, Science, and Transportation,
U.S. Senate, Washington, DC.

DEAR MR. CHAIRMAN: The Congressional Budget Office has reviewed S. 591, the Highway Fatality and Injury Reduction Act of 1991, as ordered reported by the Senate Committee on Commerce Science, and Transportation on May 14, 1991. CBO estimates that enactment of this legislation would result in no significant cost to the federal government and no cost to state or local governments. Enactment of S. 591 would not affect direct spending or receipts. Therefore, pay-as-you-go procedures would not apply to the bill.

S. 591 would require that all cars, trucks, buses, and multipurpose vehicles be equipped with airbags and would establish a schedule for the phase-in of this requirement. By September 1, 1997, the

¹⁴ *Id.* at 35, 43, and 49.

¹⁵ S. Hrg. 102-41 at 26, 27.

bill would require that all these vehicles be equipped with airbags on both the driver and the passenger sides.

If you wish further details on this estimate, we will be pleased to provide them. The CBO staff contact is Marjorie Miller, who can be reached at 226-2860.

Sincerely,

ROBERT D. REISCHAUER,
Director.

REGULATORY IMPACT STATEMENT

In accordance with paragraph 11(b) of rule XXVI of the Standing Rules of the Senate, the Committee provides the following evaluation of the regulatory impact of the legislation, as reported.

Number of persons covered

This legislation adds an additional safety requirement to requirements currently applicable for vehicles sold in the United States. As the bill does not add to those covered by current safety regulations, the number of persons covered should be consistent with current levels.

Economic impact

The reported bill does not increase the duties required of the agencies charged with implementing current regulations. It requires a change in one safety requirement that the agency must enforce, but does not authorize any additional appropriations. It is not expected to require significant increases in government expenditures, and in fact will cause reductions in Medicaid, Medicare, and Social Security survivors' payments associated with highway death and injury.

Since vehicle manufacturers have testified that they would be complying voluntarily to a large extent with the requirements of this legislation, it is not expected to add to the cost of manufacturing vehicles. In any event, airbags in both the passenger and driver sides of the front seat are expected to cost about \$300 per car at most, so this bill is not expected to have an inflationary impact on the economy. Indeed, increased airbag installation can help reduce some of the \$75 billion annual cost¹⁶ associated with highway crashes.

Privacy

This legislation will not have any adverse impact on the personal privacy of the individuals affected.

Paperwork

This legislation continues a general regulatory scheme now in effect, but effectuates a more expeditious timeframe for installation of airbags under this scheme. There should be no change in paperwork requirements associated with this program.

¹⁶ D.P. Rice and E.J. MacKenzie, "Cost of Injury in the United States, a Report to Congress," (1989).

SECTION-BY-SECTION ANALYSIS

Section 1.—Short title

This section states the short title of the reported bill as the "Highway Fatality and Injury Reduction Act of 1991."

Section 2.—Definitions

This section defines various terms used in the bill, including "passenger car" and other vehicle definitions to delineate the scope of vehicles covered by the bill. The definitions track current regulatory definitions used by NHTSA for its passive restraint requirements.

Section 3.—Airbags

This section requires that airbags be installed in all passenger cars, trucks, buses, and multipurpose passenger vehicles, as defined in the bill, on a established schedule. Specifically, this section requires that all passenger cars manufactured after September 1, 1995, be equipped with driver and passenger side airbags. It further requires that all trucks, buses, and multipurpose vehicles manufactured after September 1, 1996, be equipped with driver side airbags; and that all such vehicles manufactured after September 1, 1997, be equipped with driver and passenger side airbags. The section requires that all airbags installed meet the NHTSA performance standard for such equipment.

CHANGES IN EXISTING LAW

In compliance with paragraph 12 of rule XXVI of the Standing Rules of the Senate, the Committee states that the bill as reported would make no change to existing law.

